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21 August 1969

TEST PLAN

[redacted] HIGH PRECISION STEREOCOMPARATOR 25X1A

REFERENCES: 1) [redacted] Final Report dtd 9 February 1968 on Contract 25X1A
[redacted] 25X1A
2) NPIC/TSSG/DED-1635-69 dtd 2 June 1969

1. INTRODUCTION

1.1. The High Precision Stereocomparator (HPS) has been designed and is being fabricated [redacted] This instrument should provide stereo measurement capability with [redacted] least count in on-line and off-line operation. The optical system is to provide continuously variable magnifications ranging from 10X to 200X [redacted] In addition, automatic stereo correlation will be available with the aid of a built-in computer. 25X1A 25X1

1.2. The HPS is to be housed in a clean room with sensitive temperature and humidity controls. Auxiliary equipment, such as air compressors and vacuum pumps, will be located in an area adjacent to the HPS room.

1.3. Prior to delivery of the HPS on 31 May 1970 a test procedure for engineering and performance tests will be written by ESD/TEB. This document will list in detail those tests which will be made on the HPS by ESD/TEB personnel after acceptance of the system by the Center. On completion of these tests and operational suitability tests, a T&E Report will be written to inform the community of the system and its capabilities.

2. PRE-DELIVERY REQUIREMENTS

2.1. Prior to the delivery of the HPS, there are certain actions that must be taken. The stereo mensuration computer program must be completed and checked out. The building modifications must be completed, and the environmental control system checked out. These items are not the responsibility of ESD/TEB, but late completion dates will adversely affect delivery of the HPS.

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2.2. TEB will request an orientation on mensuration techniques from IEG/PHD. Similar training has been given to contractor representatives, arranged at the convenience of PHD.

3. PRE-ACCEPTANCE AND ACCEPTANCE TESTS

3.1. As a part of the contract for the HPS, the contractor is preparing a list of tests, and the procedures and acceptance criteria for these tests, to be used for accepting the system. This document will be submitted to RED and ESD for review and concurrence 90 days prior to the scheduled beginning of tests. The IEG/PHD personnel assigned to the HPS will be used extensively in this review.

3.2. Pre-acceptance tests will be conducted at the manufacturer's plant. The actual testing will be done by contractor personnel with RED, ESD and PHD personnel observing. This phase is scheduled to begin on 23 February 1970.

3.3. Acceptance tests will be conducted at the Center after the machine has been set up in the designated area. These tests will be conducted by the contractor with RED, ESD and PHD personnel observing. The tests which were used at the manufacturer's plant will be used at the Center, to insure that no changes have taken place in the HPS in shipment. Additional tests to insure that on-line operation is satisfactory will be included. A constant check will be maintained by ESD/TEB on environmental factors such as temperature humidity and particle count during these tests.

3.4. These preacceptance and acceptance tests will require approximately 4 months, which includes 10 weeks spent in shipping and setting up the HPS in the Center. A Memorandum Test Report will be written at the conclusion of these tests.

4. ENGINEERING AND PERFORMANCE TESTS

4.1. Engineering and performance tests will be conducted by ESD/TEB after completion of acceptance tests and the Memorandum Test Report. This phase is scheduled to start on 10 August 1970.

4.2. Systems to be tested will include stage drives, film transport, film cooling, optics, optical control, environmental control, and the mensuration system. It is not known at this time what the scope or depth of the acceptance tests will be, since the [redacted] Test Plan will not be available until 30 November 1969. The test procedures for the engineering and performance tests will be tailored to assure that all systems are thoroughly checked, and that duplication is minimized to reduce the total time spent in testing. 25X1A

4.3. IEG/PHD will provide personnel to operate the HPS who have been trained by the Contractor in the operation of the HPS. This will provide experience and insight for evaluation of the system.

4.4. Central computer time, programmers and maintenance personnel will be requested by ESD/TEB as needed during these tests. If problems are found on the computer programs during tests, the programmers will be required to locate the source of trouble and reprogram.

5. OPERATIONAL SUITABILITY TESTING

5.1. At the close of engineering and performance testing, the system will be turned over to PHD. If, during the course of their co-operation prior to that time, they have not assured themselves of the operational characteristics of the HPS, this period will be set aside for them to do so.

5.2. After conclusion of a reasonable period of operational suitability testing a complete T&E Report will be produced. This will include the results of all testing, performance evaluation and operational suitability evaluation.

[redacted]

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ATTACHMENT:
HPS Test Schedule

Distribution:
1 - Ch/RED/TSSG
1 - IEG/PHD
1 - SSD/TSSG
1 - AID/PSG
1 - APSD/TSSG
1 - ESD/EPB
1 - TSSG/PPS (through Ch/TSSG)
1 - IEG/OSS
1 - DDI/IAS
1 - DIAAP-9
1 - Army/SPAD
2 - ESD/TEB

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CENTER ROUTING SLIP

FROM	DATE
T3SG/ESD	22 Aug. 69

TO	INITIALS	DATE	REMARKS
DIRECTOR			
DEP/DIRECTOR			
EXEC/DIRECTOR			
SPECIAL ASST			
ASST TO DIR			
ASST TO DEP/DIR			
CH/PPBS			
DEP CH/PPBS			
EO/PPBS			
CH/IEG			
DEP CH/IEG			
EO/IEG			
CH/PSG			
DEP CH/PSG			
EO/PSG			
~~CH~~/TSSG/SSD	XX		
DEP CH/TSSG			
EO/TSSG			
CH/SSD/TSSG			
PERSONNEL			
LOGISTICS			
TRAINING			
RECORDS MGT			
SECURITY			
FINANCE			
DIR/IAS/DDI			
CH/DIAXX-4			
CH/DIAAP-9			
CH/SPAD			

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